Afacifenacin

Cat. No.: HY-14828

CAS No.: 877606-63-8

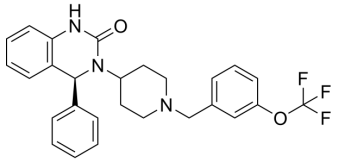
Molecular Formula: $C_{27}H_{26}F_3N_3O_2$

Molecular Weight: 481.51

Target: mAChR

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Afacifenacin (SMP-986) is a potent and orally active muscarinic receptor antagonist. Afacifenacin inhibits the bladder afferent pathway through the sodium-channel blockade, increasing volume, and reducing the frequency of urination and incontinence. Afacifenacin has the potential for the research of overactive bladder (OAB)[1][2].

In Vivo

Afacifenacin (0.3, 1, 3 mg/kg; Intragastric administration) significantly increases bladder capacity and reduced micturition pressure (MP) in cerebral infarction rats[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male Sprague-Dawley rats (cerebral infarction model)[2]
Dosage:	0.3, 1, 3 mg/kg
Administration:	Intragastric administration
Result:	Significantly increased bladder capaticy and reduced micturition pressure (MP) without affecting residual urinary volume (RUV).

REFERENCES

[1]. Yeo EK, et al. New therapies in the treatment of overactive bladder. Expert Opin Emerg Drugs. 2013 Sep;18(3):319-37.

[2]. Natsuko Goto, et al. Dual inhibition of Na+-channel and muscarinic receptor by SMP-986 efficiently improved voiding function compared to anti-muscarinic agents in two conscious rat models of detrusor overactivity. The Journal of Urology. 2008, 179, 129.

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